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Barriers to Entry

A Theoretical Treatment

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PREFACE

I was originally induced to think about barriers to entry by some research done for Charles River Associates, Inc., Boston, on behalf of their client IBM Corporation, Armonk, N.Y. After the end of this research project I continued to work on entry barriers and related issues of market structure. The results of this effort are reported here. What I present is not a book in the traditional sense of the word. Due to other research and administrative obligations I could not, without substantial delay, present a more finished product. The rapid progress in the field of industrial organisation theory made me fear that my results could become obsolete if I further waited with their publication. I hope that the early presentation of a progress report rather than a much later publication of a finished product is not only in my interest but also in the interest of economics.

I was fortunate to be able to present different chapters of my book in seminars at the following institutions: Bonn University, MIT, Harvard University, University of Chicago, North-Western University, University of Maryland, Bell Laboratories, European Association for Research in Industrial Economics (EARIE) Annual Meeting 1979, Princeton University, University of Pennsylvania, Theoretischer Ausschuß des Vereins für Socialpolitik, and the 198o World Congress of the Econometric Society. I thank these audiences for their patience and their critical comments, which lead to many revisions. Many economists gave me valuable criticism and advice for which I am grateful. I particularly appreciate the extensive comments of those who did me the favour to read preliminary versions of the book. They are: Richard Caves, Partha Dasgupta, Avinash Dixit, Franklin Fisher, Felix FitzRoy, Joen Greenwood, Sandy Grossman, Alexis Jacquemin, John McGowan, Dennis Mueller, John Panzar, Steve Salop, Michael Scherer, Richard Schmalensee, Josef Stiglitz, Thomas von Ungern-Sternberg, Ingo Vogelsang, Oliver Williamson and Robert Willig. Most of them will see that I did not follow all of their suggestions for improvements. None of them is responsible for any errors in the book. I also thank Joen Greenwood, Thomas Hänchen and Helga Jentsch for their help in the production process. The final version was excellently typed by my secretary, Renate Meiners, whom I owe many thanks.

If this were a real book, I would like to dedicate it to my wife, Elisabeth. But it does not correspond to her standards of perfection, a circumstance, which on the other hand provided us and our children with sundays and vacations free from work.

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INTRODUCTION

This book is a theoretical treatment of a concept which has gained prominence in the industrial organization literature. Based on earlier theoretical developments it was mainly the work of Bain (1956) which gave the concept of barriers to entry the importance which it now holds. Before Bain's book there was a strong tendency to analyze market structure in terms of the number and size of the actual market participants. That this was too static a viewpoint became increasingly clear. In its attempt to gain a more appropriate dynamic or long run perspective, industrial organization economics was driven to an investigation of entry conditions of an industry. The barriers to entry which Bain described, were a particularly successful conceptualization of such entry conditions. They were successful because they allowed Bain to explain a large portion of across industry variance of persistent rates of return on capital.

In the nearly 25 years since Bain's book was published, industrial organization economics has advanced substantially in empirical scope and theoretical sophistication. In all this time, the concept of entry barriers has been widely used. But economists have never made it quite clear why they would subsume certain phenomena under the heading of entry barriers and why certain other phenomena are not classified in this way. This is somewhat astonishing, given the importance of entry barriers in our thinking. It is the purpose of the present book to provide a definition of barriers to entry, which captures the intended meaning of this heuristic concept. I hope thereby to contribute towards a better understanding of market structure.

Stigler (1968) proposed a definition: "a barrier to entry may be defined as a cost of producing (at some or every rate of output) which must be borne by a firm which seeks to enter an industry but is not borne by firms already in the industry" (p.67). This definition by and large corresponds to the use of the term in the industrial organization literature. But we should be aware that economists normally implicitly assume that barriers to entry are a distortion of the competitive process. They inhibit the proper working of the principle of the Invisible Hand and thus imply inefficiencies.

I propose to make this welfare implication of barriers to entry explicit in their definition. Without this revision in the definition we are in the danger of drawing inappropriate policy conclusions. Since we cannot show as a theorem, that barriers to entry as defined by Stigler under all circumstances lead to inefficiencies we only have the choice between two ways of handling the concept. We either stick to the Stigler definition and are careful not to draw any welfare and policy conclusions from it. Or we revise the definition and require the existence of certain inefficiencies as an attribute of entry barriers. The latter approach seems to be more advisable, since the inefficiency connotation of the concept is by now deeply ingrained in the use of the term by policy oriented economists and policy makers.

The usefulness of a definition can only be shown by its application. Chapters 2 through 9 therefore are devoted to the analysis of several phenomena where one might want to speak of barriers to entry. It is seen that a careful analysis of these phenomena in the light of our definition leads to insights which perhaps are new and not conventional. In quite a few cases the policy implications deduced are different from those which a more superficial analysis may have suggested. The definition of entry barriers helps to focus the analysis on these policy implications (even though these policies are not discussed in any detail in this book). In this sense the definition seems to serve a useful purpose.

In the literature it has been stressed that above average profitability tends to be a consequence of barriers to entry. Even if it is correct that above average profitability and appropriately defined barriers to entry are positively correlated in the statistical sense, it is not true that each case of measured persistent above average profitability can reasonably be called a case of entry barriers. There are many reasons why this is not so.

1. Profits may encompass more than returns on capital, they may comprise income of other factors of production.

2. Capital may not be measured appropriately. Frequently certain intangible components of capital are under-reported in the books of enterprises.

3. Profitability is related to efficiency: above average efficiency may imply above average profitability without entailing entry barriers.

4. On the other hand, barriers to entry and the ensuing lack of competitive pressure may not lead to high profitability but to inefficiency and low productivity. To the extent that the acquisition of monopoly positions requires the outlay of capital, the rate of return on capital in a monopoly may not be greater than average.

A strict causal relation between barriers to entry and measured profitability thus does not exist. Profits thus cannot be used as a symptom of entry conditions into an industry. Explaining the level of profitability is a different, although related exercise from the one analyzing entry conditions.

The phenomena discussed in Chapters 2 to 9 do not cover the whole field of phenomena, which may be of interest in the analysis of market structure. Important issues like advertising, vertical integration, product diversity are only marginally discussed. But I believe that the diversity of problems analyzed is sufficient to indicate the usefulness of the general definition discussed in Chapter 1. In particular, I explicitly discuss important examples of phenomena which fall under each of the three classes of entry barriers discussed by Bain: absolute cost advantages, economies of scale and product differentiation advantages.